UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,644	12/20/2000	Akira Adachi	1538.1006 (JDH)	4241

21171 7590 11/17/2003

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER	
TRAN, VINCENT V	

ART UNIT	PAPER NUMBER
2655	5

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/739,644	ADACHI, AKIRA	
	Examiner	Art Unit	
	vincent v tran	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 December 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *09739644* .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3 and 4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 8, 10, 16, 18 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

2. The term "insufficient" in claims 2, 8, 10, 16, 18 and 24 is a relative term which renders the claim indefinite. The specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "insufficient" is interpret as incorrect information and/or an inappropriate amount of information.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 5-11, 13-19 and 21-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuo et al. (U.S. Patent No. 6,418,440).

Referring to claim 1, Kuo et al. disclose a dialogue processing system for performing a dialogue with a user (human-machine dialogue, col.2, ln.25-29), comprising:

a plurality of slots (User Profile & Databases), each the slot being a storage area for storing a preset information item which is required to achieve an aim of the dialogue with the user (col.4, ln.51-56 and col.5, ln.9-28);

an analyzer (Profile Manager) for extracting information corresponding to the information item from information entered by the user in the dialogue and for storing the extracted information in the slot (col.5, ln.65-67) for that information item (Fig.2, element #12); and

a response processor (Dialogue Manager) for outputting response information to the user in accordance with information storage state of the slots (col.3, ln.30-33; Fig.2, elements #20, 18, 12 and 13).

Referring to claim 2, Kuo et al. disclose the dialogue processing system, further comprising:

a knowledge base (user profile) relating to the dialogue with the user (col.5, ln.12-22); and

a knowledge base processor (Profile Manager and Auto Dialogue Generator) for extracting information corresponding to information items insufficient to achieve the aim of the dialogue with the user by using information stored in the slots and information

stored in the knowledge base and for storing the extracted information in the slot for that insufficient information item (col.4, ln.18-37 and col.5, ln.29-67).

Referring to claim 3, Kuo et al. disclose the dialogue processing system, further comprising:

a knowledge base relating to the dialogue with said user (col.5, ln.12-22); and means for confirming conformity of information stored in the slots and the information stored in the knowledge base by using the information stored in the slots and the information stored in the knowledge base (col.5, ln.29-67).

Referring to claim 5, Kuo et al. disclose the dialogue processing system, further comprising:

a knowledge base (user profile) relating to the dialogue with the user (col.5, ln.12-22);

means for determining whether information stored in the knowledge base is necessary to be updated if the information items required to achieve the aim of the dialogue with the user are stored in all of the plurality of slots (col.3, ln.10-20); and

means for updating the knowledge base in accordance with a predetermined rule if it is determined that the information stored in the knowledge base is necessary to be updated (col.4, ln.27-37).

Referring to claim 6, Kuo et al. disclose the dialogue processing system, wherein the response processor comprises:

a response information storage device (database, col.3, ln.23-25) for storing response information for the user in correspondence with the information storage state of the slots (col.3, ln.10-25); and

means for determining the information storage state of the slots and for acquiring and outputting response information for the user in correspondence with the information storage state of the slots from the response information storage device (col.5, ln.11-22 and 47-50).

Referring to claim 7, Kuo et al. disclose the dialogue processing system, wherein the information entered by the user in the dialogue is voice information entered in natural language (col.4, ln.2), and wherein said dialogue processing system further comprises:

a voice recognition processor for converting said the voice information into character information (speech recognition, col.9, ln.35-37); and

a voice synthesis processor for converting said response information into voice information (speech synthesis, col.10, ln.34-41).

Referring to claim 8, Kuo et al. disclose the dialogue processing system, wherein, in accordance with the information storage state of the slots, the response processor outputs response information for requesting the user to enter information items that are insufficient to achieve the aim of the dialogue with the user (col.4, ln.18-37 and col.5, ln.29-67).

Referring to claim 9, Kuo et al. disclose a storage medium for storing a program for processing a dialogue with a user (col.11, ln.30-32), the program comprising the steps of:

ensuring a plurality of slots on a storage device, each the slot being a storage area for storing a preset information item which is required to achieve an aim of the dialogue with the user (col.4, ln.51-56 and col.5, ln.9-28);

extracting information corresponding to the information item from information entered by the user in the dialogue and storing the extracted information in the slot for that information item (col.5, ln.65-67); and

outputting response information to the user in accordance with information storage state of the slots (col.3, ln.30-33).

Referring to claim 10, Kuo et al. disclose the storage medium, the program further comprising the steps of:

extracting information corresponding to information items insufficient to achieve the aim of the dialogue with the user by using information stored in the slots and information stored in a knowledge base relating to the dialogue with the user; and storing the extracted information in the slot for that insufficient information item (col.4, ln.18-37 and col.5, ln.29-67).

Referring to claim 11, Kuo et al. disclose the storage medium, the program further comprising a step of: confirming conformity of information stored in the slots and the information stored in a knowledge base (col.5, ln.12-22) relating to the dialogue with

the user by using the information stored in said slots and the information stored in the knowledge base (col.5, ln.29-67).

Referring to claim 13, Kuo et al. disclose the storage medium, the program further comprising the steps of:

determining whether information stored in a knowledge base (user profile) relating to the dialogue with the user (col.5, ln.12-22)is necessary to be updated if the information items required to achieve the aim of the dialogue with the user are stored in all of the plurality of slots (col.3, ln.10-20); and

updating said knowledge base in accordance with a predetermined rule if it is determined that the information stored in the knowledge base is necessary to be updated (col.4, ln.27-37).

Referring to claim 14, Kuo et al. disclose the storage medium, wherein the outputting step comprises the steps of:

determining the information storage state of the slots; and acquiring and outputting response information for the user in correspondence with the information storage state of the slots from a response information storage device for storing response information for a user in correspondence with the information storage state of the slots (col.3, ln.10-25 and col.5, ln.11-22 and 47-50).

Referring to claim 15, Kuo et al. disclose the storage medium, wherein the information entered by the user in the dialogue is voice information entered in natural language (col.4, ln.2), and wherein the program further comprises the steps of:

converting the voice information into character information (speech recognition, col.9, ln.35-37); and

converting the response information into voice information (speech synthesis, col.10, ln.34-41).

Referring to claim 16, Kuo et al. disclose the storage medium, wherein, in accordance with said information storage state of the slots, the outputting step comprises a step of outputting response information for requesting the user to enter information items that are insufficient to achieve the aim of the dialogue with the user (col.4, ln.18-37 and col.5, ln.29-67).

Referring to claim 17, Kuo et al. disclose a method for processing a dialogue with a user(col.2,ln.25-29), the method comprising the steps of:

ensuring a plurality of slots on a storage device, each the slot being a storage area for storing a preset information item which is required to achieve an aim of the dialogue with the user (col.4, ln.51-56 and col.5, ln.9-28);

extracting information corresponding to the information item from information entered by the user in the dialogue and storing the extracted information in the slot for that information item (col.5, ln.65-67: Fig.2, element #12); and

outputting response information to the user in accordance with information storage state of the slots (col.3, ln.30-33; Fig.2, elements #20, 18, 12 and 13)..

Referring to claim 18, Kuo et al. disclose the method further comprising the steps of:

extracting information corresponding to information items insufficient to achieve the aim of the dialogue with the user by using information stored in the slots and information stored in a knowledge base relating to the dialogue with the user; and storing the extracted information in the slot for that insufficient information item (col.4, ln.18-37 and col.5, ln.29-67).

Referring to claim 19, Kuo et al. disclose the method further comprising a step of: confirming conformity of information stored in the slots and the information stored in a knowledge base relating to the dialogue with the user by using the information stored in the slots and the information stored in the knowledge base (col.5, ln.12-22 and 29-67).

Referring to claim 21, Kuo et al. disclose the method further comprising the steps of:

determining whether information, stored in a knoledge base (user profile) relating to the dialogue with the user (col.5, ln.12-22) is necessary to be updated if the information items required to achieve the aim of the dialogue with the user are stored in all of the plurality of slots (col.3, ln.10-20); and

updating said knowledge base in accordance with a predetermined rule if it is determined that the information stored in the knowledge base is necessary to be updated (col.4, ln.27-37).

Referring to claim 22, Kuo et al. disclose the method, wherein the outputting step comprises the steps of: determining the information storage state of the slots; and acquiring and outputting response information for the user in correspondence with the information storage state of the slots from a response information storage device for storing response information for a user in correspondence with the information storage state of the slots (col.3, ln.10-25 and col.5, ln.11-22 and 47-50).

Referring to claim 23, Kuo et al. disclose the method set, wherein the information entered by the user in the dialogue is voice information entered in natural language (col.4, ln.2), and wherein the method further comprises the steps of: converting the voice information into character information (speech recognition, col.9, ln.35-37); and converting said response information into voice information (speecg synthesis, col.10, ln.34-41).

Referring to claim 24, Kuo et al. disclose the method, wherein, in accordance with the information storage state of the slots, the outputting step comprises a step of outputting response information for requesting the user to enter information items that are insufficient to achieve the aim of the dialogue with the user (col.4, ln.18-37 and col.5, ln.29-67).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 4, 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al. in view of Fukumochi et al. (U.S. Patent No. 4,833,611) and further in view of Miike et al. (U.S. Patent No. 5,787,414).

Referring to claim 4, Kuo et al. disclose the dialogue processing system, wherein the information entered by the user in the dialogue is a sentence in natural language (col.4, ln.2).

Kuo et al. do not specifically disclose a analyzer comprising:

means for performing morpheme analysis for the sentence;

means for performing parsing processing for the results of the morpheme analysis; and

means for extracting information corresponding to the information item based on the results of the morpheme analysis and the parsing processing.

However, Fukomochi et al. teach performing morpheme analysis for the sentence (Fig.2; col.2, ln.45); and perform parsing processing for the results of the morpheme analysis (Fig.2, col.2, ln.46).

Combining Fukumochi et al.'s teaching with Kuo et al. allows the system determines the syntax of the sentence including the correlation between the sources words (col.2, ln.54-56).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Kuo et al., to have morpheme process and syntax analyzing process, as taught by Fukumochi et al., in order to improve a grammatical rules (col.5, ln.38-39).

The combination of Kuo et al. with Fukomochi et al. do not specifically disclose using an extraction rule pre-defined to achieve the aim of the dialogue with the user.

However, Miike et al. teach using an extraction rule pre-defined to achieve the aim of the dialogue with the user (Fig.97 and col.47, ln.64 – col.48, ln.4).

Combining Miike et al.'s teaching with Kuo et al. allows the system carries out the extraction of the retrieval word.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Kuo et al. which can use an extraction rule, as taught by Miike et al., in order to reduce processing time and the effort required to retrieve or store data from/to system database.

Referring to claim 12, Kuo et al. disclose the storage medium, wherein the information entered by the user in the dialogue is a sentence in natural language (col.4, ln.2).

Kuo et al. do not specifically disclose a analyzer comprising:

performing morpheme analysis for the sentence;

performing parsing processing for the results of the morpheme analysis; and

extracting information corresponding to the information item based on the results of the morpheme analysis and the parsing processing.

However, Fukomochi et al. teach performing morpheme analysis for the sentence (Fig.2; col.2, ln.45); and performing parsing processing for the results of the morpheme analysis (Fig.2, col.2, ln.46).

Combining Fukumochi et al.'s teaching with Kuo et al. allows the program determines the syntax of the sentence including the correlation between the sources words (col.2, ln.54-56).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the program of Kuo et al., to have morpheme process and syntax analyzing process, as taught by Fukumochi et al., in order to improve a grammatical rules (col.5, ln.38-39).

The combination of Kuo et al. with Fukomochi et al. do not specifically disclose using an extraction rule pre-defined to achieve the aim of the dialogue with the user.

However, Miike et al. teach using an extraction rule pre-defined to achieve the aim of the dialogue with the user (Fig.97 and col.47, ln.64 – col.48, ln.4).

Combining Miike et al.'s teaching with Kuo et al. allows the program carries out the extraction of the retrieval word.

Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to modify the program of Kuo et al. which can use an extraction rule, as taught by Miike et al., in order to reduce processing time and the effort required to retrieve or store data from/to system database.

Referring to claim 20, Kuo et al. disclose the method, wherein the information entered by the user in the dialogue is a sentence in natural language (col.4, ln.2).

Kuo et al. do not specifically disclose a analyzer comprising:

performing morpheme analysis for the sentence;

performing parsing processing for the results of the morpheme analysis; and

extracting information corresponding to the information item based on the results of the morpheme analysis and the parsing processing.

However, Fukomochi et al. teach performing morpheme analysis for the sentence (Fig.2; col.2, ln.45); and performing parsing processing for the results of the morpheme analysis (Fig.2, col.2, ln.46).

Combining Fukumochi et al.'s teaching with Kuo et al. allows the method determines the syntax of the sentence including the correlation between the sources words (col.2, ln.54-56).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Kuo et al., to have morpheme process and syntax analyzing process, as taught by Fukumochi et al., in order to improve a grammatical rules (col.5, ln.38-39).

The combination of Kuo et al. with Fukomochi et al. do not specifically disclose

using an extraction rule pre-defined to achieve the aim of the dialogue with the user.

However, Miike et al. teach using an extraction rule pre-defined to achieve the aim of the dialogue with the user (Fig.97 and col.47, ln.64 – col.48, ln.4).

Combining Miike et al.'s teaching with Kuo et al. allows the method carries out the extraction of the retrieval word.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Kuo et al. which can use an extraction rule, as taught by Miike et al., in order to reduce processing time and the effort required to retrieve or store data from/to system database.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Pickering (U.S. Patent No. 6,601,029) teaches a voice processing system receives spoken input from user, which is then subjected to speech recognition to convert the spoken input into a text equivalent.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner **Vincent V. Tran** whose E-mail address:

Vincent.tran@USPTO.GOV.

Phone number: (703) 305-1817

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To, can be reached on (703) 305-4827.

8. Any inquiry of a general natural or relating to the status of this application should be directed to the Technology Center 2600 receptionist whose telephone number is (703) 305-4700.

9. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

Or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Dr, Arlington VA, Sixth Floor (Receptionist, Tel. No. 703-305-4700).

Art Unit 2655

VINCENT V. TRAN

Date: November 14, 2003

TĀLIVALDIS IVARS ŠMITS
PRIMARY EXAMINER